

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A skull crucible ~~(1)~~ for melting or refining inorganic substances, in particular glass or glass ceramics, the crucible comprising;

- ~~1.1~~ with a crucible wall ~~(1.1)~~;
- ~~1.2~~ with a crucible base ~~(1.2)~~ cooperating with said crucible wall to form an inner chamber;
- ~~1.3~~ with an induction coil ~~(2)~~ surrounding the crucible wall ~~(1.1)~~ wall and via which high frequency-energy is coupled to contents of the crucible;
- ~~1.4~~ wherein the crucible wall is formed ~~from~~ from a crown of metal tubes which can be connected to a coolant, with slotted interstices between adjacent metal tubes;
- ~~1.5~~ the base ~~(1.2)~~ has a run-off for the melt;
- ~~1.6~~ a sleeve ~~(4)~~ is assigned to the run-off and defines an inlet end;
- ~~1.7~~ the inlet end ~~(4.1)~~ of the sleeve protrudes into the inner chamber of the skull crucible ~~(1)~~ so that the inorganic melt can be removed through a the-crystallised crystallized base layer of the inorganic melt formed on the base in a controlled manner without the danger of impairing its quality; and
a temperature regulating device assigned to the sleeve and selectively adjusting the temperature of the sleeve such that the temperature of the sleeve is lowered during melting and raised during run-off of the melt.

Claim 2 (Currently Amended): A skull crucible as claimed in Claim 1, characterized ~~characterised~~ in that the upper edge of the sleeve ~~(4)~~ is at a height of between a tenth to a half of the melt height measured from the base ~~(1.2)~~ of the crucible.

Claim 3 (Canceled)

Claim 4 (Currently Amended): A skull crucible as claimed in Claim ~~3~~ 1, characterized
~~characterised~~ in that ~~an the~~ upper area of the sleeve ~~(4)~~ projecting into the melt and forming a
cavity is double-walled, and in that the cavity has an inlet ~~(4.3)~~ and an outlet ~~(4.4)~~ for a coolant.

Claim 5 (Currently Amended): A skull crucible as claimed in claim 1, characterized
~~characterised~~ by the following features.

- ~~1.5.1~~ the sleeve ~~(4)~~ has two coaxial sleeves including an outer sleeve and an inner sleeve;
- ~~2.5.2~~ the outer sleeve is a metal jacket;
- ~~3.5.3~~ the inner sleeve is a quartz glass tube.

Claim 6 (Currently Amended): A skull crucible as claimed in claim 1, characterized
~~characterised~~ in that the sleeve is height-adjustable.

Claim 7 (Currently Amended): A skull crucible as claimed in claim ~~8~~ 2, characterized in that the
sleeve ~~(4)~~ is assigned a temperature regulating device for adjusting ~~or regulating it's the~~
temperature of the sleeve.

Claim 8 (Currently Amended): A skull crucible ~~as claimed in claim 2, characterized by the~~
~~following features~~ for melting or refining inorganic substances, in particular glass or glass
ceramics, the crucible comprising:

a crucible wall;

a crucible base cooperating with said crucible wall to form an inner chamber;

an induction coil surrounding the crucible wall and via which high frequency-
energy is coupled to contents of the crucible;

wherein the crucible wall is formed from a crown of metal tubes which
can be connected to a coolant, with slotted interstices between adjacent metal tubes, the
base has a run-off for the melt, and a sleeve is assigned to the run-off and defines an inlet
end, the inlet end of the sleeve protrudes into the inner chamber of the skull crucible so
that the inorganic melt can be removed through a crystallized layer of the inorganic melt
formed on the base in a controlled manner without the danger of impairing its quality, the

sleeve has two coaxial sleeves including an inner and outer sleeve; the outer sleeve is a metal jacket; and the inner sleeve is a quartz glass tube.

Claim 9 (Canceled)

Claim 10 (Currently Amended): A skull crucible as claimed in claim 4, characterized by the following features:

the sleeve ~~(4)~~ has two coaxial sleeves;
the outer sleeve is a metal jacket;
the inner sleeve is a quartz glass tube.

Claim 11 (Currently Amended): A skull crucible as claimed in claim 8 ~~2~~, characterized in that the sleeve is height-adjustable.

Claim 12 (Canceled)

Claim 13 (Previously Presented): A skull crucible as claimed in claim 4, characterized in that the sleeve is height-adjustable.

Claim 14 (Previously Presented): A skull crucible as claimed in claim 5, characterized in that the sleeve is height-adjustable.

Claim 15 (New): A skull crucible as claimed in claim 8 characterized in that an upper area of the sleeve projecting into the melt and forming a cavity is double-walled, and in that the cavity has an inlet and an outlet for a coolant.

Claim 16 (New): A skull crucible as claimed in claim 8, characterized in that the sleeve is made from a noble metal.

Claim 17 (New): A skull crucible as claimed in claim 1, characterized in that the sleeve is made from a noble metal.

Appl. No. 10/049,952
Amdt. dated July 26, 2004
Reply to Office Action of March 24, 2004

Claim 18 (New): A skull crucible as claimed in claim 17, characterized in that the noble metal of the sleeve is platinum or a platinum alloy.

Claim 19 (New): A method for melting or refining inorganic substances, in particular glass or glass ceramics, the method comprising:

melting the inorganic substances in an inner chamber of a skull crucible having a crucible wall and a crucible base, the crucible base comprising a run-off for the melt to which a sleeve is assigned;

cooling the sleeve during melting such that a crystallized layer of the inorganic substances is developed on the sleeve to protect the sleeve from corrosion by the melted inorganic substances; and

raising the sleeve to allow removal of the melt.

Claim 20 (New): The method of claim 19 wherein the sleeve is made from a noble metal.

Claim 21 (New): The method of claim 19 wherein the noble metal is platinum or a platinum alloy.